

IN THE SPECIFICATION

Please replace paragraph [0042] with the following amended paragraph:

[0042] In one embodiment, mirror layer 310 is disposed above scintillator layer 320, and scintillator layer 320 is disposed above light transparent layer 330. Light transparent layer 330 is disposed above photodiode layer 340, and photodiode layer 340 is disposed above substrate layer 350. Substrate layer 350 is disposed above protective layer 360. Scintillator layer 320 has first surface 322 adjacent to light transparent layer 330 and second surface 324 325 adjacent to mirror layer 310. In an alternative embodiment, substrate layer 350 may be absent from imager 300. Substrate layer 350 may not be necessary so that photodiode layer 340 is disposed directly above protective layer 360. Scintillator layer 320 or protective layer 360 may serve as the substrate for imager 300.

Please replace paragraph [0043] with the following amended paragraph:

[0043] Digital radiography imager 300 is configured such that x-rays may be received in a direction from protective layer 360. The x-rays propagate through photodiode layer 340 incident to first surface 322 before propagating through scintillator layer 320. In this configuration, the most intense visible light is generated near first surface 322 of scintillator 320 that is closest to photodiode layer 340. However, if the x-rays were received in a direction from mirror layer and incident to second surface 324-325 of scintillator 320, the most intense visible light generated would be near second surface 324 325.

Please replace paragraph [0044] with the following amended paragraph:

[0044] It would not be obvious to receive x-rays in a direction from photodiode layer 340 because of the concern for providing enough scintillator thickness ~~326~~, so that a viable amount of x-ray energy could be absorbed to generate visible light. However, because digital radiography imager 300 is configured such that x-ray traverse the photodiode layer first, scintillator thickness ~~326~~ may no longer be a significant factor in balancing x-ray absorption with light diffusion. In one embodiment, scintillator 320 may have thickness ~~326~~-greater than conventional scintillator thickness. In another embodiment, scintillator 320 may be thinner than conventional thickness, or just thin enough to generate visible light and reflect the light towards photodiode layer 340.

Please replace paragraph [0049] with the following amended paragraph:

[0049] In one embodiment, substrate 350 may have a thickness of approximately 1.1 millimeters. Photodiodes ~~324-342~~, ~~326-344~~ may each have a thickness of approximately 2 microns. Scintillator layer 320 may have a thickness of approximately 0.6 millimeters.

Please replace paragraph [0051] with the following amended paragraph:

[0051] Profile 430 corresponds to light intensity measured at an x-ray input surface of the scintillator. Profile 440 corresponds to light intensity measured at a surface opposite the x-ray input surface. In one embodiment, profile 430 may correspond to light intensity near first surface 322 as illustrated in **FIGURE 3**. Profile 440 may correspond to light intensity near second surface 324325. Graph 400 suggests that light intensity is far greater at the x-ray input surface compared to the non-x-ray surface, particularly up to x-ray pattern edge 450. Thus, by detecting visible light at a scintillator surface corresponding to the x-ray input surface, it may be expected that both signal to noise ratio and the spatial resolution may improve up to 100%, compared to detecting light energy at a scintillator surface opposite to the x-ray input surface. Beyond x-ray pattern edge 450, light intensity 420 for profiles 430 and 440 decays exponentially.